



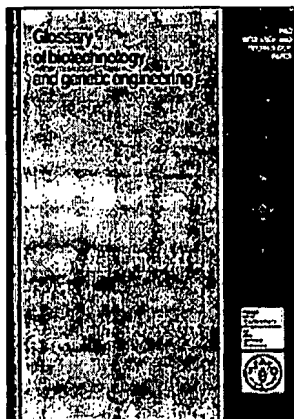
**FAO CORPORATE DOCUMENT REPOSITORY**

Originated by: Sustainable  
Development Department

Title: Glossary of biotechnology and genetic  
engineering...

PDF version

More details



**FAO RESEARCH AND TECHNOLOGY PAPER No. 7**

## **Glossary of biotechnology and genetic engineering**

Note, in 2002, FAO published a revised, augmented  
version of this glossary. It is available at  
<http://www.fao.org/DOCREP/004/Y2775E/Y2775E00.HTM>  
or, as a searchable database, at  
[http://www.fao.org/biotech/index\\_glossary.asp](http://www.fao.org/biotech/index_glossary.asp).

### Table of contents

**A. Zaid  
H.G. Hughes  
E. Porceddu  
F. Nicholas**

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the United Nations or the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

ISBN: 92-5-104369-8

ISSN: 1020-0541

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the copyright owner. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Information Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy.

**Food and Agriculture Organization of the United Nations**

© FAO 1999

# Glossary of biotechnology and genetic engineering

A. Zaid  
H.G. Hughes  
E. Porceddu  
F. Nicholas

FAO  
RESEARCH  
AND  
TECHNOLOGY  
PAPER

7

Food  
and  
Agriculture  
Organization  
of the  
United  
Nations



Rome, 1999

**morphogenesis** The development, through growth and differentiation, of form and structure in an organism.

**morphogenic response** The effect on the developmental history of a plant or its parts exposed to a given set of growth conditions or to a change in the environment.

**morphology** (Gr. *morphe*, form + *logos*, discourse) 1. The science of studying form and its development.

2. General: Shape, form, external structure or arrangement.

**mosaic** An organism or part of an organism that is composed of cells with different origin.

**mother plant** See donor plant.

**movable genetic element** See transposon.

**mRNA; messenger RNA** The RNA transcript of a protein-encoding gene. The information encoded in the mRNA molecule is translated into a polypeptide of specific amino acid sequence by the ribosomes. In eukaryotes, mRNAs transfer genetic information from the DNA to ribosomes, where it is translated into protein.

**MRUs** Minimum recognition units. See dabs.

**mtDNA** See mitochondrial DNA.

**multi-copy** Describing plasmids which replicate to produce many plasmid molecules per host genome, e.g., pBR322 is a multi-copy plasmid, there are usually 50 pBR322 molecules (or copies) per *E. coli* genome.

**multigene family** A group of genes that are similar in nucleotide sequence or that produce polypeptides with similar amino acid sequences.

**multigenic** Controlled by several genes, as opposed to monogenic.

**multi-locus probe** A probe that hybridizes to a number of different sites in the genome of an organism. See probe.

**multimer; multimeric** A protein made up of more than one peptide chain.

**multiple alleles** The existence of more than two alleles at a locus in a population.

**multiple cloning site** See polylinker.

**multiple drop array (MDA)** See microdroplet array.

**multiple ovulation and embryo transfer (MOET)** A technology by which a single female that usually produces only one or two offspring can produce a litter of offspring. Involves stimulation of a female to shed large numbers of ova; natural mating or